

WHAT IS CLAIMED IS:

1. A method for multicasting content to remote users, comprising:
designating a portion of the content to each one of plural multicast
routers;
5 registering a data stream of interest for each user;
associating each user with a multicast router that geographically
corresponds to the particular user and the data stream of interest registered by
the particular user; and
transmitting the content to the users via the multicast routers.
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2. The method of claim 1, wherein the content is delivered
hierarchically from a host sever at a top level that controls the entire portion of
the content to the plural multicast routers at a mid level that receive the
designated portions of the content that they are capable of accommodating to
15 the users at a lowest level which receive parts of the designated portions
representing respective user registered data streams of interest.
3. The method of claim 1, wherein registering the data stream of
interest includes requesting a user to identify the user's particular streams of
20 interest to the multicasting system.
4. The method of claim 1, further comprising using network socket
options with special flags to register streams of interest for particular multicast

groups.

5 5. The method of claim 1, further comprising locating a multicast router on a subnet for receiving identified streams of interest and adding the streams of interest to the located router's list of streams of interest.

10 6. The method of claim 1, further comprising communicating the router's streams of interest to multicast groups of interest and to other multicast routers to allow relevant routers on the network to have information about the streams of interests of other routers.

15 7. The method of claim 6, further comprising examining the streams of interest lists of other routers and forwarding users content based on their identified streams of interest.

8. The method of claim 1, wherein the network is the Internet.

20 9. The method of claim 8, wherein the content includes at least one of audio and video Internet multimedia broadcast.

10. In a computer network system, a method for providing content from a host server to remote network users that connect to the network with different bandwidths, the method comprising:

establishing group membership for a multicast group;
establishing an individualized set of broadcast criteria;
disseminating broadcast data within the group into discrete
segments; and

5 determining which segments of the broadcast data will be sent to
remote servers of the network.

11. The method of claim 11, wherein establishing an individualized set
of broadcast criteria includes registering streams of interest of the host.

10 12. The method of claim 10, further comprising using network socket
options with special flags to register streams of interest for particular multicast
groups.

15 13. The method of claim 10, further comprising communicating the
router's streams of interest to multicast groups of interest and to other multicast
routers to allow relevant routers on the network to have information about the
streams of interests of other routers.

20 14. The method of claim 13, further comprising examining the streams of
interest lists of other routers and forwarding users content based on their identified
streams of interest.

15. The method of claim 10, wherein the network is the Internet.

16. In a computer network system, a multicast system for providing personalized content from a host server to remote network users that connect to the network with different bandwidths, the multicast system comprising:

plural multicast routers designated with portions of the content, wherein each multicast router registers data streams of interest for each user geographically associated with that multicast router and wherein the host server transmits the content to the users via the multicast routers.

17. The multicast system of claim 16, wherein the multicast routers are located on a subnet for receiving requested streams of interest.

18. The multicast system of claim 17, wherein the multicast routers save the requested streams and then add the streams to their list of streams of interest.

19. The multicast system of claim 18, wherein the multicast routers communicate both their streams of interest and their multicast groups of interest to other networked multicast routers to allow all routers to have knowledge of other router's streams of interest within the network.

20. The multicast system of claim 16, wherein the network is the Internet.

21. A method using a computer-readable medium having computer-executable instructions for multicasting content originating from a host server to remote users, the method comprising:

- 5 designating a portion of the content from the host server to each one of plural multicast routers, wherein each designated portion is based on broadcasting capabilities of the respective multicast router;
- registering a data stream of interest by each remote user;
- associating each remote user with a multicast router that
- 10 corresponds to a geographical locale and the data stream of interest registered by the particular user; and
- transmitting the content to the remote users via the multicast routers.

- 15 22. The method of claim 21, wherein the content is delivered hierarchically from the host sever residing at a top level to the plural multicast routers residing at a mid level to the users residing at a lowest level.

- 20 23. The method of claim 22, wherein the multicast routers receive the designated portions of the content that they are capable of accommodating and the remote users receive parts of the designated portions representing respective user registered data streams of interest.

24. The method of claim 21, wherein registering the data stream of interest includes requesting a remote user to identify the user's particular streams of interest and reception capabilities to the multicasting system.

5 25. The method of claim 21, further comprising using network socket options with special flags to register streams of interest for particular multicast groups.

10 26. The method of claim 21, further comprising locating multicast routers on a subnet for receiving identified streams of interest and adding the streams of interest to the located router's list of streams of interest.